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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/729,339	12/05/2000	Kyoichi Suwa	108057	6728

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EXAMINER
HOANG, QUOC DINH

ART UNIT	PAPER NUMBER
2818	

DATE MAILED: 11/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/729,339	SUWA, KYOICHI	
	Examiner	Art Unit	
	Quoc D Hoang	2818	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 July 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-8 and 11-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-8 and 11-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Notice to Applicants

1. Applicant's papers filed on 07/03/2002 have been received and entered. Claims 1, 9 and 10 have been canceled. Claims 15-22 are newly added. Claims 2-8, 11-22 are pending in the application.

Information Disclosure Statement

2. The Information Disclosure Statement filed on 04/20/2001 has been considered.

Allowable Subject Matter

3. The indicated allowability of claims 2-4 and 12-14 are is withdrawn in view of the newly discovered reference(s) to Suwa et al. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 2, 3 and 11 are rejected under 35 U.S.C. 102(b) as anticipated over Tateno et al. (U.S. Patent No. 5,666,205).

Regarding claim 2, Tateno et al., Figures. 1-23, and related text on col. 1-22 which discloses a mask comprising: a circuit pattern PA to be transferred to a substrate W via an optical system (col. 6, lines 45-67 and Fig. 3); and an inspection pattern to be used for a measurement of

a line width of a pattern transferred to the substrate W, wherein the inspection pattern includes: a first measurement pattern P1; and second measurement pattern P2 to be superimposed on an image of the first measurement pattern P1 and the second measurement pattern P2 (col. 7, lines 10-67, col. 8, lines 1-45, and Figs. 4A-B); and an extraction pattern to be used for an extraction of a predetermined image from a superimposed image of the first measurement pattern P1 and the second measurement pattern P2 (col. 7, lines 10-67, col. 8, lines 1-45, and Figs. 4A-B).

Regarding claim 3, Tateno et al., discloses each of the first measurement pattern P1 and the second measurement pattern P2 comprises a plurality of linear patterns TP1, PT4 and TP5 and TP6 are parallel to each other, and the extraction pattern has a rhombis shape (see Fig. 4A-B).

Regarding claim 11, Tateno et al., Figures. 1-23, and related text on col. 1-22 which discloses a mask comprising: a base member R (Fig. 3);a first linear pattern P1 formed on the base member R and which has a predetermined line width l (col. 7, lines 10-40 and Fig. 4A); and second linear pattern P2 to be superimposed on an image of the first linear pattern P1 and has a line width l_1 different from that of the first linear pattern P1 (col. 7, lines 40-50 and Fig. 4A).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 4-8 and 12-22 are rejected under 35 U.S.C 103(a) as being unpatentable over Tateno et al. (U.S. Patent No. 5,666,205) in view of Suwa et al., (U.S. Patent No. 4,931,830).

Regarding claims 4, 5, 12, 15, 17 and 19, Tateno et al., Figures. 1-23, and related text on col. 1-22 which discloses a mask comprising: a base member R (Fig. 3); a circuit pattern PA formed on the base member (Fig. 3); and an inspection pattern P formed on the base member R (Fig. 3).

Tateno et al., does not teach the inspection pattern P is formed in a separate area to a circuit area in which the circuit pattern is formed.

Suwa et al., teaches an inspection pattern TP is formed in a separate area to a circuit area PA in which the circuit pattern is formed (col. 8, lines 55-67 and Fig. 6A).

Tateno et al and Suwa et al., are combinable because they are from the same field of endeavor. At the time of the invention it would have been obvious to a person of ordinary skill in the art to form the inspection pattern in a separate area to a circuit area. The motivation for doing so is easy to form the linear patterns on a plurality of masks. Therefore, it would have been obvious to combine Tateno et al with Suwa et al., to obtain claims 4, 5, 12, 15, 17 and 19.

Regarding claims 6 and 18, Suwa et al., teaches the line width of the inspection pattern TP corresponding to a line width of the circuit pattern PA (col. 8, lines 60-65 and Fig. 6A).

Regarding claims 16 and 20, Suwa et al., teaches the inspection pattern TP is a lines-and space pattern (col. 9, lines 1-5).

Regarding claim 21, Tateno et al., discloses the inspection pattern comprises a first linear pattern P1 formed with predetermined line width l (col. 7, lines 10-40 and Fig. 4A); and second linear pattern P2 to be superimposed on an image of the first linear pattern P1 and has a line width l_1 different from that of the first linear pattern P1 (col. 7, lines 40-50 and Fig. 4A).

Regarding claims 7-8,13-14 and 22, Suwa et al. do not disclose "an exposure method" in claims 7-8, 13-14 and 22. However, the limitation "an exposure method" is taken to be a product by process limitation and consider non-limitation. In a product-by-process claim, it is the patentability of the claimed product and not of the recited process steps which must be established. Therefore, when the prior art discloses a product which reasonably appears to be identical with or only slightly different than the product claimed in a product-by process claim, a rejection based on sections 102 or 103 is fair. The Patent Office is not equipped to manufacture products by a myriad of processes put before it and then obtain prior art product and make physical comparisons therewith. In re Brown, 173 USPQ 685 (CCPA 1972). Also, a product by process claim directed to the product per se, no matter how actually made, In re Hirao, 190 USPQ I S at 17 (footnote 3). See In re Fessman, 180 USPQ 324, 326 (CCPA 1974); In re Marosi et al., 218 USPQ 289, 292 (Fed. Cir. 1983); and particularly In re Thorpe, 227 USPQ 964, 966 (Fed. Cir. 1985), all of which make it clear that it is the patentability of the final structure of the product "gleaned" from the process steps, which must be determined in a " product by process" claim, and not the patentability of the process. See also MPEP 2113. Moreover, an old and

obvious product produced by a new method is not a patentable product, whether claimed in "product by process" claims or not.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quoc Hoang whose telephone number is (703) 306-5795. The examiner can normally be reached on Monday -Friday from 8.00 AM to 5.00 PM.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms., can be reached on (703) 308-4910.

Quoc Hoang
Paten Examiner/AU 2818

HOAI HO
PRIMARY EXAMINER